IN THE CLAIMS:

Claim 91 (canceled).

Claim 92 (currently amended): A method for producing an information carrier comprising at least two solid material interfaces adapted to contain information and whereat the information is stored by local modulation of at least one solid material characteristic, from which characteristic reflection of electro-magnetic radiation depends at said interface, further comprising at least one intermediate layer between said two solid material interfaces, said at least one intermediate layer transmitting said radiation, said information being readable from a least one of said solid material interfaces by means of radiation of predetermined wavelength, the method comprising the step of:

depositing in said intermediate layer at least one layer at least predominantly comprising $Si_vN_wH_u$ by means of a reactive vacuum coating process in a process atmosphere, v, w and u each being positive numbers, an optimum of transmission of said layer and of a refractive index of the material of said layer being achieved by adjusting the concentration of a reactive gas in the process atmosphere, which reactive gas comprises N and H.

Claim 93 (previously presented): The method according to claim 92, wherein Si is freed into the process atmosphere from a solid body.

Claim 94 (previously presented): The method according to claim 92, wherein said gas in said process atmosphere at least predominantly consists of two different gases with different ratios of at least one of C content to H content and of N content to H content and wherein said optimum is one of open-loop- and of negative-feedback-controlled by adjusting the ratio of amount of said two gases in said process atmosphere.

Claim 95 (currently amended): The method according to claim [[91 or]] 92, further comprising applying between a carrier for workpieces, whereon said layer is produced, and an electrode in a vacuum atmosphere a DC-voltage and superimposing to said DC-voltage an AC-voltage.

Claim 96 (previously presented): The method according to claim 95, wherein said AC-voltage superimposed to said DC-voltage is a pulsating voltage.

Claim 97 (previously presented): The method according to claim 95, wherein said AC-voltage is generated by intermittently connecting said carrier and said electrode via a first current path and a second current path, which second current path having a considerably lower resistance than said first current path.

Claim 98 (currently amended): The method according to claim [[91 or]] 92, comprising one of reactive sputtering and of ion plating for said reactive vacuum coating.

Claim 99 (previously presented): The method according to claim 98, wherein said sputtering is performed by magnetron sputtering.

Claim 100 (currently amended): The method according to claim [[91 or]] 92, wherein a target of negative or positive doped silicon is one of reactively sputtered, ion plated and reactive magnetron sputtered.

Claims 101-105 (canceled).

Claim 106 (currently amended): A method according to claim [[91 or]] 92, wherein the method includes applying a silver layer between one of the solid material interfaces and the intermediate layer.

Claims 107-120 (canceled).

Claim 121 (currently amended): A method for producing an information carrier comprising at least two solid material interfaces adapted to contain information and whereat the information is stored by local modulation of at least one solid material characteristic, from which characteristic reflection of electromagnetic radiation depends at said interface, further comprising at least one intermediate layer between said two solid material interfaces, said at least one intermediate layer transmitting said radiation, said information being readable from a least one of said solid material interfaces by means of radiation of predetermined wavelength, the method comprising the step of:

depositing the intermediate layer to have a layer system with at least one dielectric layer and with an optical thickness which, at least in a first approximation, is $m.\lambda_o/4$, wherein m is an integer of at least unity and is uneven and wherein λ_o designates the wavelength of said radiation which is transmitted through said at least one dielectric layer and wherein, depending from said m being an integer, m being reduced by an amount of up to 0.6 or increased by an amount of up to 0.2;

~~A method according to claim 107,~~ wherein said dielectric layer consists at least predominantly of at least one of the materials of the group ZrN, HfN, TiN.

Claim 122 (previously presented): A method according to claim 121, wherein said dielectric layer at least predominantly consists of ZrN.

Claims 123-149 (canceled).